

Notice of Allowability

Application No.

10/720,139

Examiner

Charles E. Cooley

Applicant(s)

DROCCO, DAVIDE

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 1 SEP 2005.
2. ☒ The allowed claim(s) is/are 1-6 and 8-13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. The application has been amended as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A kneading machine comprising:
 - a rotating tank that is substantially cylindrical; and
 - a pair of kneading implements turning within the tank, with concordant directions of rotation, about two axes parallel to the axis of the tank, which are substantially tangential both to one another and to the circumferential wall of the tank,wherein:
 - each implement comprises at least one arm;
 - each arm extends on the periphery and from one end to the other of the theoretical cylinder that has an axis that is coincident with the respective axis of rotation of said arm, in such a way that said arm describes an orbital movement about the respective axis of rotation;

- each arm, at least for a part of its length, ~~that are synchronized with respect to one another, in~~ is inclined with respect to a straight line generatrix of said theoretical cylinder parallel to said axis of rotation of the arm;

- the opposite ends of the two arms are staggered with respect to one another, viewed in the direction of the axis of rotation, by an angle smaller than 180° about said axis of rotation;

- means are provided for causing said arms to have orbital movements about the respective axes of rotation that are synchronized with respect to one another, in such a way that the arms pass simultaneously in the area of tangency of the respective theoretical cylinders, intersecting one another with opposite directions of movement on account of the concordant rotation of the two implements;

wherein the aforesaid angle of staggering of the two opposite ends of each arm is between 20° and 100°, and is preferably between 20° and 45°.

2. (Original) The kneading machine according to Claim 1, wherein said arms are inclined in a concordant way with respect to the generatrices of their theoretical cylinders in such a way that at their intersection in the aforesaid area of tangency they are arranged so that they cross one another, according to a scissors-like configuration.

3. (Currently Amended) The kneading machine according to Claim 2, wherein each arm is set according to a portion of helix extending on the periphery of its theoretical cylinder, and from one end to the other of said cylinder, according to an angle smaller than ~~180°~~ 180°, viewed in the direction of the axis of rotation.

4. (Original) The kneading machine according to Claim 3, wherein the two aforesaid theoretical cylinders have diameters that are substantially equal and heights that are substantially equal, the two portions of helix defining on said arms are substantially equal, and the speeds of rotation of the arms are also substantially equal, so that the area of tangency of the two arms shifts progressively during their intersection in a direction parallel to the axes of the two theoretical cylinders and from one end to the other of said cylinders.

5. (Original) The kneading machine according to Claim 1, wherein each of the aforesaid theoretical cylinders has a diameter that is sufficiently large so that said cylinder has overall dimensions that exceed the limits of the respective quadrant of tank.

6. (Original) The kneading machine according to Claim 5, wherein the two kneading implements constitute the only members present inside the tank.

7. (Canceled)

8. (Currently Amended) A kneading machine comprising:

- a rotating tank that is substantially cylindrical; and
- a pair of kneading implements turning within the tank, with concordant directions of rotation, about two axes parallel to the axis of the tank, which are substantially tangential both to one another and to the circumferential wall of the tank,

wherein:

- each implement comprises at least one arm;
- each arm extends on the periphery and from one end to the other of the theoretical cylinder that has an axis that is coincident with the respective axis of rotation of said arm, in such a way that said arm describes an orbital movement about the respective axis of rotation;
- each arm, at least for a part of its length, ~~that are synchronized with respect to one another, in~~ is inclined with respect to a straight line generatrix of said theoretical cylinder parallel to said axis of rotation of the arm;
- the opposite ends of the two arms are staggered with respect to one another, viewed in the direction of the axis of rotation, by an angle smaller than 180° about said axis of rotation;
- means are provided for causing said arms to have orbital movements about the respective axes of rotation that are synchronized with respect to one

Art Unit: 1723

another, in such a way that the arms pass simultaneously in the area of tangency of the respective theoretical cylinders, intersecting one another with opposite directions of movement on account of the concordant rotation of the two implements;

wherein the aforesaid angle of staggering of the two opposite ~~30~~ ends of each arm is between 20° and 100°, and is preferably between 20° and 45°,

wherein said arms are inclined in a concordant way with respect to the generatrices of their theoretical cylinders in such a way that at their intersection in the aforesaid area of tangency they are arranged so that they cross one another, according to a scissors-like configuration,

wherein each arm is set according to a portion of helix extending on the periphery of its theoretical cylinder, and from one end to the other of said cylinder, according to an angle smaller than ~~4800~~ 180°, viewed in the direction of the axis of rotation, and

wherein the aforesaid portion of helix has an angle of inclination between 15° and 40°.

9. (Original) The kneading machine according to Claim 8, wherein the aforesaid angle of inclination of the portion of helix is equal to approximately 20°.

Art Unit: 1723

10. (Currently Amended) The kneading machine according to Claim 1, wherein the two arms present respective cutting edges ~~30~~, which are set opposite to one another when the two arms ~~43a~~ cross one another.

11. (Original) The kneading machine according to Claim 10, wherein the arms have a cross section of square shape.

12. (Currently Amended) The kneading machine according to Claim 10, wherein the arms have a cross section of trapezial shape.

13. (Original) The kneading machine according to Claim 10, wherein said arms have a cross section of rhomboidal shape.

14. (Canceled)

* * *

3. The above changes were made to correct typographical errors as compared to the previous set of claims examined in the last office action. A section of text in claims 1 and 8 was erroneously moved to another section of the claims and is thus corrected herein. Extraneous reference numbers in the claims were deleted. Several angular measurements were revised to include a degree symbol. The preamble of claim 12 was

revised to reflect the previous version of the claim and to render the preambles consistent with each other. These changes were made to expedite allowance of the application only and are not made in view of any prior art or patentability issues since the scope of the claims is not altered in any manner. The claims are allowed over the prior art since Applicant placed several of the allowed dependent claims identified in the last office action into independent form as expressed in the remarks filed 1 SEP 2005.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri. All official facsimiles should be transmitted to the centralized fax receiving number 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, reading "Charles Cooley". The signature is written in black ink on a white background.

Charles E. Cooley
Primary Examiner
Art Unit 1723

14 September 2005